

credit opinions, indicates that labor expenses due to personnel shortages will continue to plague hospitals and is the biggest financial concern for that sector because it typically costs up to twice normal equivalent wages to fill gaps with temporary agency help.

The Bureau of Labor Statistics (BLS) projects that in the period 1998–2008, a total of 93,000 positions in clinical laboratory science need to be provided in the form of creating 53,000 new jobs and filling 40,000 existing vacancies. Of the 9,000 openings per year, academic institutions are producing only 4,990 graduates annually. BLS projections in 2004 show that nine of the 10 fastest growing occupations are health or computer (information technology) occupations.

Accredited respiratory therapy programs in 2000 graduated 5,512 students—21% fewer than the 6,062 graduates in 1999. In 2001, the number of graduates from these schools fell another 20% to 4,437. The BLS expects employment of respiratory therapists to increase faster than the average of all occupations, increasing from 21% to 35% through 2010. The aging population and an attendant rise in the incidence of respiratory ailments, including asthma and COPD, and cardiopulmonary diseases drive this demand.

Employment growth in schools will result from expansion of the school-age population and extended services for disabled students. Therapists will be needed to help children with disabilities prepare to enter special education programs.

The American Hospital Association has identified declining enrollment in health education programs as a factor leading to critical shortages of health care professionals. That assessment is buttressed by data from 90 institutions belonging to the Association of Schools of Allied Health Professions. The following professions were unable to reach enrollment capacity over a three-year period: cardiovascular perfusion technology, cytotechnology, dietetics, emergency medical sciences, health administration, health information management, medical technology, occupational therapy, rehabilitation counseling, respiratory therapy, and respiratory therapy technician.

Given the level of anxiety over the possibility of terrorist attacks occurring in this country, in a study released by the General Accounting Office (GAO) on April 8, 2003 that focused on the nation's adequacy of preparedness against bioterrorism, it was reported that shortages in clinical laboratory personnel exist in state and local public health departments, laboratories, and hospitals. Moreover, these shortages are a major concern that is difficult to remedy.

Laboratories play a critical role in the detection and diagnosis of illnesses resulting from exposure to either biological or chemical agents. No therapy or prophylaxis can be initiated without laboratory identification and confirmation of the agent in question. Laboratories need to have adequate capacity and necessary staff to test clinical and environmental samples in order to identify an agent promptly so that proper treatment can be started and infectious diseases prevented from spreading.

Meanwhile, the U.S. population continues to become more racially and ethnically diverse. A health care workforce is needed that better reflects the population they serve. Practitioners must become more attuned to cultural differences in order to facilitate communication and enhance health care quality.

THE DEMOGRAPHIC IMPERATIVE

The U.S. Census Bureau reports that rapid growth of the population age 65 and over will begin in 2011 when the first of the baby boom generation reaches age 65 and will continue

for many years. The larger proportions of the population in older age groups result in part from sustained low fertility levels and from relatively larger declines in mortality at older ages in the latter part of the 20th century. From 1900 to 2000, the proportion of persons 65 and over went from 4.1 percent to 12.4 percent.

In the 20th century, the total population more than tripled, while the 65 years and older population grew more than tenfold, from 3.1 million in 1900 to 35.0 million in 2000.

Among the older population, the cohort 85 years and over increased from 122,000 in 1900 to 4.2 million in 2000. Since 1940, this age group increased at a more rapid rate than 65-to-74 year olds and 75-to-85 year olds in every decade. As a proportion of the older population, the 85 and over group went from being four percent of the older population to 12 percent between 1900 and 2000.

THE EPIDEMIOLOGICAL IMPERATIVE

The baby-boom generation's movement into middle age, a period when the incidence of heart attack and stroke increases, will produce a higher demand for therapeutic services. Medical advances now enable more patients with critical problems to survive. These patients may need extensive therapy.

According to Solucient, a major provider of information for health care providers, profound demographic shifts over the next twenty-five years will result in significant increases in the demand for inpatient acute care services if current utilization patterns do not change. An aging baby boom generation, increasing life expectancy, rising fertility rates, and continued immigration will undoubtedly increase the volume of inpatient hospitalizations and significantly alter the mix of acute care services required by patients over the next quarter century. Nationwide, demographic changes alone could result in a 46 percent increase in acute care bed demand by 2027. Total acute care admissions could also increase by almost 13 million cases in the next quarter century—a growth of 41 percent from the current number of national admissions. Currently, the aged nationwide account for about 40 percent of inpatient admissions and about 49 percent of beds. By 2027, they could make up a majority of acute care services—51 percent of admissions and 59 percent of beds.

Along with the aging of the population came an increase in the number of Americans living with one, and often more than one, chronic condition. Today, it is estimated that 125 million Americans live with a chronic condition, and by 2020 as the population ages, that number will increase to an estimated 157 million, with 81 million of them having two or more chronic conditions. Twenty-five percent of individuals with chronic conditions have some type of activity limitations. Two-thirds of Medicare spending is for beneficiaries with five or more chronic conditions.

Many individuals with chronic conditions rely on family caregivers. Approximately nine million Americans provide such services, and on the average, they spend 24 hours a week doing so. Caregivers age 65–74 provide an average of 30.7 hours of care per week and individuals age 75 and older provide an average of 34.5 hours per week.

Women are more likely than men to have chronic conditions, in part because they have longer life expectancies. These same women are caregivers to other chronically ill persons. In addition, 65 percent of caregivers are female, and of all caregivers, nearly 40 percent are 55 years of age and older.

Physicians report that their training does not adequately prepare them to care for this type of patient in areas such as providing education and offering effective nutritional

guidance. Allied health professionals can provide those aspects of care, but many of them need better preparation to treat and coordinate care for patients with chronic conditions. While much emphasis is placed on curative forms of care, additional efforts must be devoted to slowing the progression of disease and its effects.

ADDITIONAL STATEMENTS

IN REMEMBRANCE OF HAROLD “HAL” RUBIN

• Mrs. BOXER. Mr. President, it is my honor to speak in memory of Harold “Hal” Rubin, a professor and activist who will always be remembered for his love of family, politics and the environment.

Hal Rubin was an excellent example of a citizen who consistently worked to make his community a better place. Mr. Rubin's love for politics motivated his involvement in numerous local issues and political races in Placer County. He was passionate about issues such as campaign spending limits, the environment and preserving the rural characteristics of Placer County.

Hal had an exceptional career as a professor. He began his teaching career as a professor of English and Political Science at Sierra Community College. At Sierra, he was voted by the students as their favorite professor. He continued his teaching career as a professor of journalism at California State University, Sacramento.

His strong writing skills coupled with his concern for the environment led him to a job as a senior technical writer for what is now GenCorp Incorporated, where he wrote about nuclear propulsion in the Nation's space program. Those traits combined with his interest in politics also led him to a freelance writing career, with articles published in various California magazines.

In addition to his dedication to politics, teaching and the environment, Hal was devoted to serving his country. His service during World War II as a member of the Army Air Force was an act of selfless dedication to protecting our Nation. He also served as a member of the Veterans of Foreign Wars, Post 1942.

Hal Rubin committed his life to his community, his Nation and most of all his family. He touched the lives of many, and his impact on his community will be long remembered.●

TRIBUTE TO HAROLD O. DAVIES

• Mr. BUNNING. Mr. President, today I would like to take the opportunity to honor Mr. Harold O. Davies, a Seaman on the USS *Yorktown* in the Battle of Midway during World War II.

During the Memorial Day holiday, we have honored many of our service men and women who risked their lives for their country. We have especially honored what Americans call “our greatest generation”—the men and women who fought in WWII—and Mr. Davies is an